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PATENT SPECIFICATION



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496,740

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Specification not Accepted

COMPLETE SPECIFICATION

Improvements in Physical Culture Apparatus

I, ANTOINE GARCIA, of do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention has for object an apparatus for physical culture giving progressive and graduated movements for a regular rational impulse.

Most apparatus actually in use have very particular characteristics which necessitate special movements in which, generally speaking, graduation is totally absent, as for instance with apparatus giving the movements of rowing. These apparatus, which are fairly costly, rapidly disgust the novice and then become completely useless.

The apparatus forming the subject of the present invention is made in such a manner that all the movements can be readily graduated according to the age and degree of enthusiasm.

It is known that manuels on physical culture teach a certain number of simple movements such as the flexing and extension of the body lying on its back, the feet being kept stationary. These movements more especially cause the abdominal muscles to work. These flexing and extension movements of the body can be graduated if the back no longer rests on a plane surface but on the contrary if the body is raised by a seat. The movement of extension can then extend rearwardly the back assuming the shape of an arc of a circle.

The apparatus forming the subject of the present invention is therefore essentially based on the use of a seat of adjustable height which can be rendered movable and combining the possible variations in height with the movements of displacement in such a manner that there is obtained with a simple apparatus, of slight cost, most of the movements for physical culture in a progressive and rational manner.

The accompanying figures show, by way of example, a diagrammatic realisation of 50 an apparatus forming the subject of the invention.

Fig. 1 shows a simplified apparatus with removable seat adjustable in height.

Fig. 2 shows a complete apparatus with 55 seat adjustable in height and movable by articulation.

Fig. 3 shows the apparatus of Fig. 2 in action.

In these figures, a structure or frame 1 of suitable length receives at one of its extremities a raised member 2 on which is secured stirrups 3 for instance made of leather, for holding the feet. A seat 4 is held solidly to the structure 1 by any 60 suitable means. In Fig. 1 this seat, by reason of its mounting, can be brought closer to or moved further away from the stirrups 3 to suit the size of the person using the apparatus. The movability can, 70 for instance be obtained by means of pins or studs 5. The height of the seat 4 could be progressively increased by a series of plates 6 suitable fitting in the seat 4 or by any other means serving the same 75 object.

It is thus possible to pursue a graduated training which is also rational. In fact the more the seat 4 is raised the more will the back assume a hollow in its extension 80 movements, the arms spread out backwardly having to touch the ground (position of extension of the person, shown in dotted lines in Fig. 1).

The apparatus thus constructed 85 obviously only permits of extension and flexing movements of the person who already has a certain amount of training. It is difficult in fact to return from the extension position to the flexing position 90 of the body forwardly if the muscles have not already the flexibility and the force necessary. It is therefore useful to give the person a bearing or resting point to permit of a more easy pull on the arms. 95 This could be obtained for instance by a

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cord secured at the height of the stirrups 3.

It is nevertheless more easy to graduate the progressiveness of the movements by providing a seat which is movable by 5 articulation to which levers are added, such an arrangement further permitting of giving all the movements of a rower.

For this purpose (Fig. 2) on the structure 1 are provided rods 7 pivotally mounted to the extremities of which is secured the seat 4 on which it likewise pivots. In this manner there is obtained a parallelogram articulated at its four angles. The variations in height of the seat 4 as well as its distance from the stirrups 3 are obtained by simple fixing at the position required by any suitable means such as removable struts 8. The necessary points for fixing the struts 8 are provided in the structure or frame. When it is desired to render the seat 4 movable to provide for instance the movements of rowing, the struts 8 are eliminated. By flexing the legs the seat 25 4 is articulated on the four tops of the parallelogram formed by the structure 1; the rods 7 and the seat 4 and owing to this the seat can oscillate. This movement is limited by abutments 9 or their equivalents at the front and rear. There is also provided an exerciser 10 or springs fulfilling the same purpose one extremity of which is secured to the structure 1 and the other extremity to the seat 4.

35 Finally the levers 11, removable or not, secured to one of the rods 7 can also facilitate the movements of the person who can grip them with the hands.

These levers 11 could be replaced in a 40 simple manner by a known rowing device to give the movements of rowing.

The apparatus can be readily dismantled, the structure being foldable or not, so as to have a small compass when

no longer in use.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. Apparatus for physical culture in a rational and progressive training characterised by a seat of variable height and position to permit of graduating the movements of the user. 50

2. Apparatus as claimed in claim 1 characterised in that the seat being movable to give a suitable distance away from the stirrups for holding the feet. 55

3. Apparatus as claimed in claims 1 and 2 characterised in that the seat is mounted on rods articulated at their extremities permitting an oscillatory movement of the seat when it is movable and a variation in height when it is stationary. 60

4. Apparatus as claimed in claims 1 to 3 characterised by abutments limiting the forward and rearward travel of the movable seat. 65

5. Apparatus as claimed in claims 1 to 4 characterised by the provision of an exerciser or of springs integral with the seat. 70

6. Apparatus as claimed in claims 1 to 5 characterised by levers rendered integral 75 with one of the articulated rods facilitating the movement of the person.

7. Apparatus as claimed in claims 1 to 6 characterised by the possible addition as an accessory of a rowing device. 80

8. Apparatus as claimed in claims 1 to 7 constructed and arranged substantially as shown in the accompanying drawing.

Dated this 26th day of February, 1937.

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Fig. 1

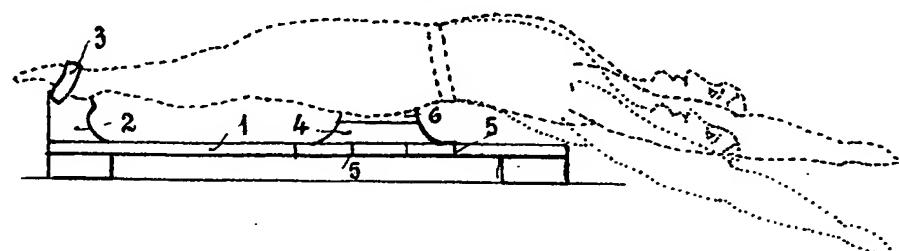


Fig. 2

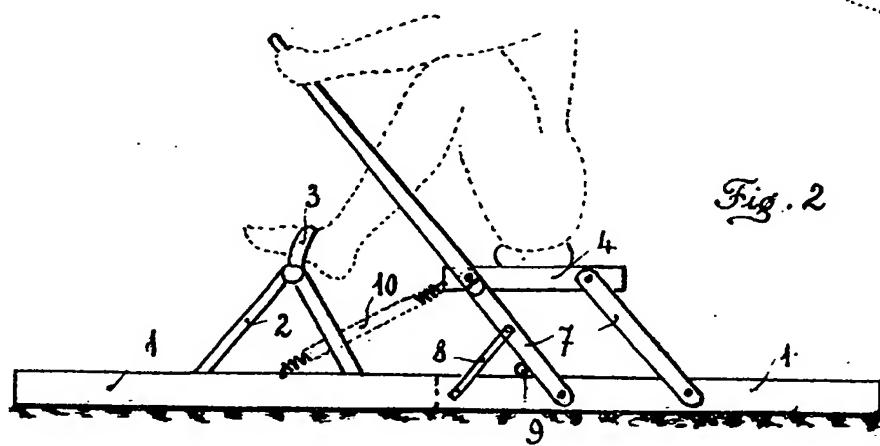
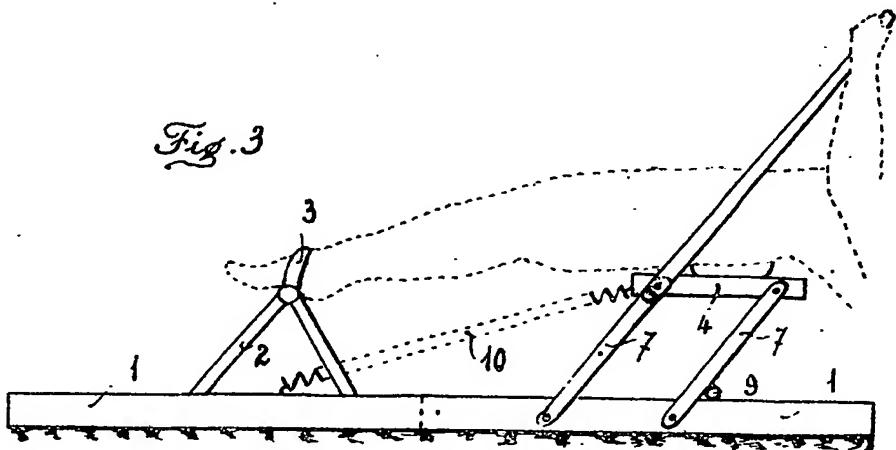


Fig. 3



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